Plan for Coordinating Science
Summary of Needs, Gaps, and Actions

Miami, Florida
September 14, 2004

Coordinating Science and Management

- Purpose
  - Identify critical science needs and gaps and coordinate activities to fill gaps
- Science includes:
  - Research
  - Modeling
  - Monitoring
  - Science applications
- Need
  - Process or phenomenon that must be understood to make decisions that support restoration goals
- Gap
  - When scientific information is insufficient or not timely to address a need

Plan to Coordinate Science

- Phase I
  - Developed retrospective and prospective approach
    - Restoration science
    - Ensuring quality science
  - Applied approach for a subset of areas
  - Developed Task Force coordination actions to fill initial gaps
- Phase II
  - Complete needs and gap analysis
  - Develop full suite of Task Force coordination actions
- Periodically update the Plan

Science Needs and Gaps – Two Categories

- Restoration Science
  - Research, Modeling, Monitoring
  - Science Applications
- Ensuring Quality Science
  - Independent Reviews and Quality Protocols
  - Information Sharing
  - Tracking Progress and Updating the Plan

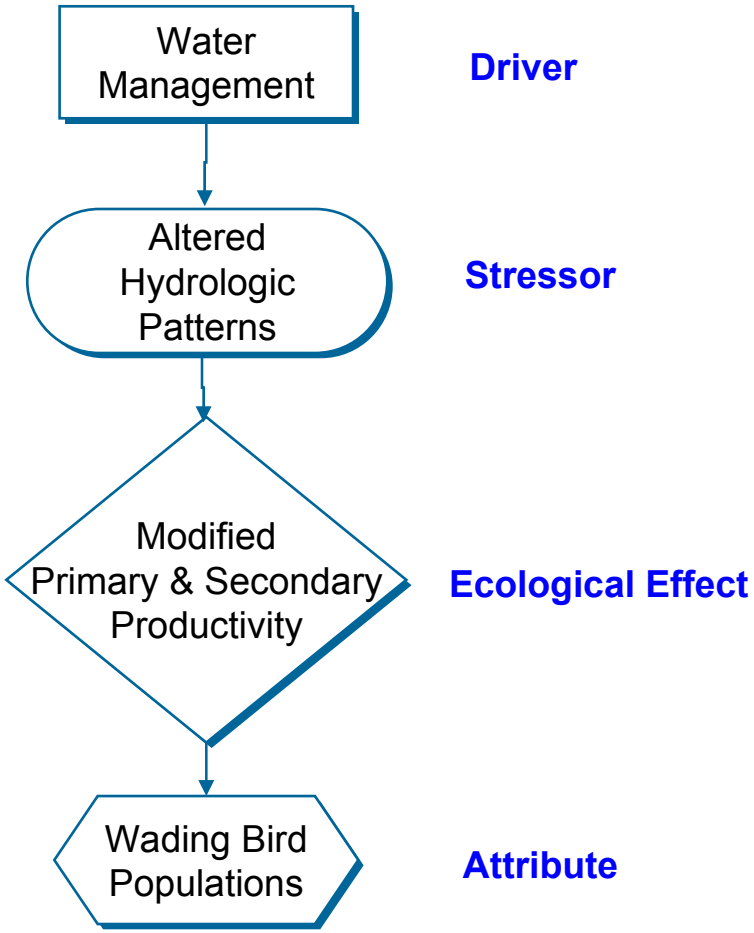
Approach for Identifying Needs and Gaps

- Needs approach
  - Strategic
  - Focused on most critical science needs using:
    - CEMs – retrospective
    - SCG member expertise – prospective
- Gaps approach
  - For each need
    - Reviewed RECOVER efforts
    - Reviewed other partnership and organizational-level programs
  - Needs that are not completely understood or not being addressed in a timely manner were identified as gaps

Restoration Science

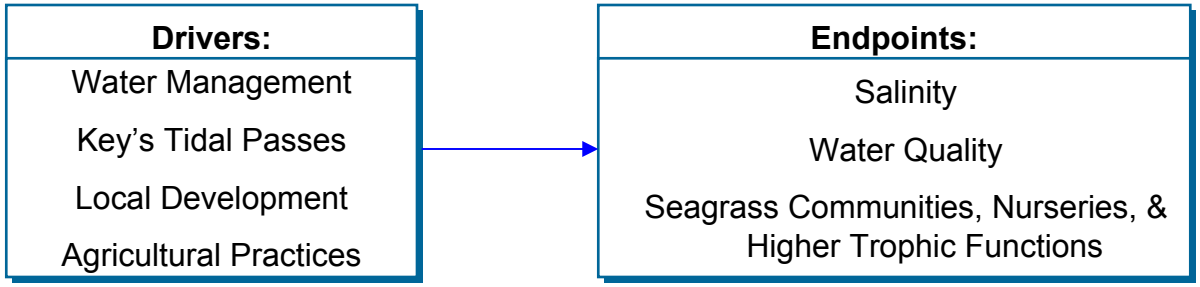
- Research, Modeling, and Monitoring
  - Florida Bay
  - System-wide

Conceptual Ecological Model Approach



Florida Bay Needs, Gaps, and Actions

NEED



GAPS

- Completing critical science of the Florida Bay and Adjacent Marine Systems (FBAMS) Strategic Science Plan
- Maintaining scope and schedule for the Southern Estuaries component of the RECOVER MAP, including the monitoring not funded by CERP
- Completing the Florida Bay and Florida Keys Feasibility Study (FB/FKFS) water quality model on time to meet Feasibility Study project schedule

ACTIONS RECOMMENDED BY THE SCG

Task Force to review by December 2004:

- FB/FKFS
- Implementation of the CERP MAP
- FBAMS Strategic Science Plan

System-wide Needs, Gaps, and Actions

NEEDS

11 Drivers and Stressors:
Water Management
Land Use/Development
Contaminants
Nutrients
Spatial Extent/Habitat Fragmentation
Invasive Species

GAPS

- Completing the Comprehensive Integrated Water Feasibility Study (CIWFS)
- Maintaining the current scope and schedule for the RECOVER MAP

ACTIONS RECOMMENDED BY THE SCG

Task Force to review by December 2004:

- Current status of the CIWFS **[On agenda for September Task Force Meeting]**
- Implementation of the CERP MAP

Restoration Science

- Science Applications

Science Applications

NEEDS

- Approach for evaluating restoration progress through the use of system-wide indicators and restoration endpoints
- Understand the natural system baseline and the interrelationships among drivers and attributes

GAPS

- Developing and using system-wide indicators and restoration endpoints
- Refining the natural system model
- Vetting of the CEM for the Florida Keys

ACTIONS RECOMMENDED BY THE SCG

SCG to:

- Design approach for developing system-wide indicators and restoration endpoints by December 2004
- Implement approach by December 2005
- Work with implementing organizations by September 2005 to:
  - Address necessary improvements in the NSM
  - Develop a fully-vetted CEM for the Florida Keys

Already Assigned by the Task Force

Ensuring Quality Science

Ensuring Quality Science

NEEDS

- Coordinate processes for quality assurance protocols
- Develop the ability to establish independent technical reviews or to convene independent science panels
- Develop process to vet system-wide science results, share information, and identify additional needs and gaps
- Develop processes to track progress, review and improve the Plan

GAPS

- Develop system-wide protocols for organizational-level programs
- Enhance system-wide information sharing processes
- Develop processes for tracking progress and periodically reviewing and updating the Plan

ACTIONS

SCG to complete in Phase II of the Plan by September 2006

Action Summary

- For review and approval by the Task Force

Action Summary

Action	Lead	Milestone
General		
Complete Phase II of the PCS	SCG	9/06
Florida Bay		
Review the FB/FKFS, implementation of the CERP MAP for the Southern Estuaries, and the FBAMS Strategic Science Plan	Task Force	12/04
Total System		
Review current status of the CIWQFS and implementation of the CERP MAP	Task Force	12/04
Science Applications		
Design an approach for developing system-wide indicators and restoration endpoints	*SCG*	*12/04*
Implement approach to develop system-wide indicators and restoration endpoints	*SCG*	*12/05*
Work with implementing organizations to address necessary improvements in the NSM and develop a fully-vetted conceptual ecological model for the Florida Keys	SCG	9/05

Actions in italics assigned by Task Force
Actions in normal print recommended by SCG for approval by Task Force